

In the Claims:

Claims 1 to 10 (Canceled).

1 11. (New) A sensor transponder (1) with a facility for
2 transmitting measurement data from a tire (9) to a
3 receiving facility and at least one acceleration sensor,
4 characterized in that the sensor transponder (1) is fitted
5 on an inner side of the running surface (2) of the
6 tire (9).

1 12. (New) The sensor transponder (1) according to claim 11,
2 characterized in that as a receiving facility, a receiving
3 antenna is fitted, which is preferably arranged in a
4 vehicle.

1 13. (New) The sensor transponder (1) according to claim 12,
2 characterized in that the receiving antenna is also
3 designed as a transmitting antenna.

1 14. (New) The sensor transponder (1) according to claim 11,
2 characterized in that the sensor transponder (1) comprises
3 a memory for tire-specific parameters.

- 1 15. (New) The sensor transponder (1) according to claim 11,
2 characterized in that the sensor transponder (1) comprises
3 at least one pressure sensor.
- 1 16. (New) The sensor transponder (1) according to claim 11,
2 characterized in that the sensor transponder (1) comprises
3 at least one temperature sensor.
- 1 17. (New) The sensor transponder (1) according to claim 11,
2 characterized in that a central unit is fitted and the
3 evaluation of the signals from the sensor transponder (1)
4 is conducted in the central unit.
- 1 18. (New) A procedure for calculating a tire contact length
2 (6), whereby a sensor transponder (1) is fitted with at
3 least one acceleration sensor arranged on the inner side of
4 a running surface (2) of a tire (9), the signals from the
5 acceleration sensor are compared with threshold values and
6 are then integrated, and the tire contact length (6) is
7 calculated independently of the velocity using quotient
8 formation.
- 1 19. (New) The procedure according to claim 18, characterized in
2 that the tire contact area (tread) is calculated from the
3 tire contact length (6) using tire-specific parameters.

1 20. (New) The procedure according to claim 19, characterized in
2 that the wheel load is calculated using the tire contact
3 area and the tire pressure.

[REMARKS FOLLOW ON NEXT PAGE]